

SHHH... 0 dB (A) SELF NOISE

THE WORLD'S QUIETEST STUDIO
CONDENSER MICROPHONE



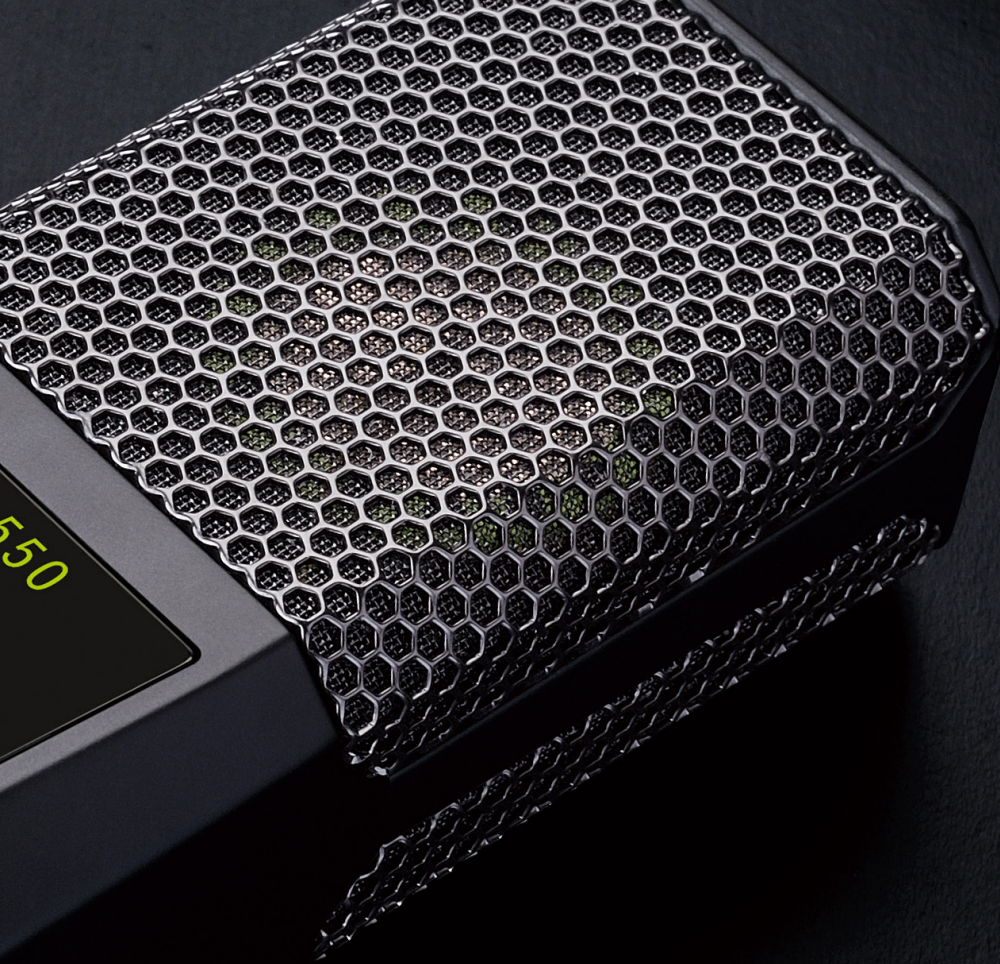
// LCT 550 USER MANUAL

SOUNDS LIKE  LEWITT

// Index

Intro	4
Features and top applications	5
User Interface	6
Technical Data	8
Safety Guidelines	9
Warranty	10
Regulatory Information	11





// Intro

Thank you for choosing the LEWITT LCT 550! The LCT 550 is the first and only large-diaphragm studio microphone ever to achieve 0 dB (A) self-noise*, and thus the world's quietest. But the Austrian-developed LCT 550 sets new standards in terms of more than just self-noise.

Its dynamic range of 140 dB (A) guarantees the best-possible results even in challenging settings. Its three pre-attenuation levels (0 dB, -6 dB and -12 dB) increase maximum SPL to as high as 155 dB (A) but at the same time, it's meant to be your tool of choice when it comes to recording the most fragile and quiet sound sources with great detail and dynamic range. The LCT 550 also offers a clipping history as well as an auto-attenuation mode that automatically switches to the next level of attenuation if the signal is too strong.

The LCT 550 is indeed a very versatile large-diaphragm microphone, and its excellent attributes stand out in a wide variety of applications. Try it for capturing ambient sound, percussion instruments, ambitious vocal and choral tracks, and even classical ensembles.

Manufacturing tolerances have been minimized thanks to highly precise calibration of the capsule and the electronics – which means that any two LCT 550, set identically, will always form a matched pair at +/- 0 dB ... so it's about time to get another one for superb stereo recordings!



// Features

- // 0 dB-A self-noise from electronics and circuitry*
- // A perfect match: highly precise calibration of the capsule and the electronics means that any two microphones from this series will always form a matched pair at +/- 0 dB
- // Precise transient response due to the 1-inch, ultra-thin, gold-layered low-mass diaphragm
- // Extraordinary sensitive: capture even extremely weak signals with great precision and detail
- // Maximum SPL of 143 dB (155 dB with 12 dB pad) for an impressive total dynamic range of 140 dB (!)
- // Immune to electromagnetic interference thanks to transformerless preamplifier circuitry
- // 3 switchable pads (0dB, -6dB, -12dB) for handling high sound pressure levels
- // 2 switchable low-cut filters: 80Hz (12dB/Oct), 160Hz (6dB/Oct)
- // Noiseless pushbuttons for attenuation and HPF selection
- // Cardioid polar pattern for effective sound rejection

- // Illuminated user interface for quick and easy handling in dark environments
- // Clipping history, automatic attenuation and key-lock make for error-free recording and unparalleled ease of use
- // Gold-plated 3-pin XLR output connector

// Top applications

- // Classical instruments and ensembles
- // Ambitious stereo recording techniques (XY, ORTF)
- // Lead and background vocals
- // Acoustic instruments (strings, guitars, piano, etc.)
- // As a classic drum & percussion overhead

* 0dB-A electronics only, 3 dB-A according to IEC 60268-1 due to Brownian motion (in simple words: the sound made by the movement of air molecules...)

// User Interface



1 Status Indicator // Indicates different active settings such as key lock, automatic attenuation, clipping history ... see below for details.

2 Low-cut filter // Use to reduce unwanted low frequency noise caused by wind, footsteps, structure-borne noise or likewise. The low-cut filters at 80Hz or 160Hz affect the microphone input by 6 and 12dB per octave and can be set by pressing the left pushbutton (4).

3 Pre-Attenuation // Use this pad function to prevent clipping when recording very loud sources. Choose between 6 and 12 dB of attenuation. Change settings with the right pushbutton (6).

4 Left push button // Push to change low-cut settings. It also activates the Clipping History.

Clipping History // Pressing the left pushbutton for more than two seconds activates and deactivates the Clipping History. If clipping occurred since you have checked previously, the Status Indicator (1) blinks red, the manually set level of pre-attenuation blinks and the suggested attenuation setting is illuminated. The history will be cleared after leaving the Clipping History.



5 Center pushbutton // Pressing the center pushbutton for more than two seconds activates (Status Indicator (1) not illuminated) and deactivates (Status Indicator (1) turns white) the key lock.

6 Right pushbutton // Push to change attenuation settings. Also activates Automatic Attenuation.

Automatic Attenuation // Pressing the right push button for more than two seconds activates (Status Indicator (1) turns red) and deactivates (Status Indicator (1) turns white) Automatic Attenuation. In this mode the microphone adjusts the attenuation setting automatically when clipping has occurred.

// Tech Data

Acoustical operating principle //

pressure gradient transducer, externally polarized

Transducer Ø //

25.4 mm / 1 in

Polar pattern //

cardioid

Frequency range //

20–20,000 Hz

Sensitivity //

36 mV / Pa (-29 dBV)

Signal / noise ratio //

91 dB-A

Equivalent noise level //

0 dB-A, electronics only,

3 dB-A according to IEC 60268-1 due to Brownian Motion

Dynamic range of FET Mic. Amp. //

140 dB-A

Max. SPL for 0,5 % THD //

143 dB, 0 dB pre-attenuation

149 dB, 6 dB pre-attenuation

155 dB, 12 dB pre-attenuation

Pre-attenuation pad //

6 dB / 12 dB, switchable

Bass cut filter slope //

12 dB / octave at 80 Hz

6 dB / octave at 160 Hz

Rated impedance //

< 150 ohms

Rated load impedance //

> 1,000 ohms

Supply voltage //

48 V +/- 4 V

Current consumption //

5.5 mA

Connector //

gold plated 3-pin XLR

Dimensions //

158 x 52 x 36 mm, 6.22 x 2.04 x 1.42 in

Net weight //

425 g, 14.9 oz



// Safety Guidelines

// The capsule is a sensitive, high precision component. Make sure you do not drop it from high heights and avoid strong mechanical stress and force.

// To ensure high sensitivity and best sound reproduction of the microphone, avoid exposing it to moisture, dust or extreme temperatures.

// Keep this product out of the reach of children.

// Do not use force on the switch or cable of the microphone.

// When disconnecting the microphone cable, grasp the connector and do not pull the cable.

// Do not attempt to modify or fix it. Contact qualified service personnel in case any service is needed. Please do not disassemble or modify the microphone for any reasons as this will void users warranty.

// The casing of the microphone can be cleaned easily using a wet cloth, never use alcohol or another solvent for cleaning. If necessary the foam wind stopper can be washed with soap water. Please wait till it is dry before using it again.

// Please also refer to the owner's manual of the component to be connected to the microphone.

// Warranty

All products manufactured by LEWITT GmbH feature a limited two-year warranty. This two-year warranty is specific to the date of purchase as shown on your purchase receipt.

LEWITT GmbH shall satisfy the warranty obligations by remedying any material or manufacturing faults free of charge at LEWITT's discretion either by repair or by exchanging individual parts or the entire appliance. Any defective parts removed from a product during the course of a warranty claim shall become the property of LEWITT GmbH.

While under warranty period, defective products may be returned to the authorized LEWITT dealer together with original proof of purchase. To avoid any damages in transit, please use the original packaging if available. Please do not send your product to LEWITT GmbH directly as it will not be serviced. Freight charges have to be covered by the owner of the product.

For further information please visit www.lewitt-audio.com or check your warranty card.



// Regulatory Information

LEWITT GmbH declares under its sole responsibility that LCT 940 complies with the European directive 2004/108/EC and 2006/95/EC. The product has been tested according to harmonized European standards:

EN 55022: 2010

EN 55024: 2010

EN 61000-3-2: 2006 + A2: 2009

EN 61000-3-3: 2008

EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011

Product testing was carried out by SEM. Test Compliance Service Co., Ltd. notified body number SEM11124587 / SEM11126875.

LEWITT GmbH hereby declares under its sole responsibility that LCT 940 has been tested and conforms to the following FCC and ANSI standards:

FCC Part 15B Section 15.205, 15.107 and 15.109

ANSI C63.4-2009

Product testing was carried out by SEM. Test Compliance Service Co., Ltd.

WEEE note: Electronic waste has to be collected separately. Please bring this device to a local recycling center at the end of its life time.

Manufacturers signature:

Date: 20th May 2014 DI Roman Perschon

Place: Vienna, AUSTRIA CEO – Lewitt GmbH

Declaration of conformity can be downloaded at www.lewitt-audio.com or obtained from info@lewitt-audio.com.